

## THE COLLECTION OF ANIMAL REFUSE OF TOWNS.

At a meeting of the Society of Arts, on the 11th, Mr. B. Rutch in the chair, Dr. Ayres read a paper on the importance of the animal refuse of towns as a manure, and the methods of rendering it available to agricultural purposes. The author commenced his paper by calling attention to the necessity of preserving the animal refuse of towns, and the importance which is attached to it in China and Flanders, in many departments of France, Tuscany, &c., and also to the various forms in which it is applied to the earth.

Having alluded to the importance of this subject in connection with the improvement of the sanitary condition of towns, and the injurious effects upon the inhabitants of London in particular, by allowing the putrid matter to be carried into the Thames, there to be tossed upon the waves and left exposed upon the shores at each retrocession of the tide,—he proceeded to consider the contents of the cesspools of London at which he has calculated cannot yield less than 46,500 tons of perfectly dry matter annually—a quantity, according to the analysis of Liebig, sufficient to fertilise at least a million acres of land, and the monetary value of which cannot be stated at less than 340,000*l*. Having next alluded to the plans which have hitherto been proposed for drying and rendering this great mass of matter portable and available for agricultural purposes, he proceeded to describe a plan which he has recently patented for effecting so desirable an object.

My process (he observed) essentially depends on the fact, that all the gaseous and volatile products of putrefaction are combustible, and are resolved into the ordinary products of combustion when carried over any incandescent surface, or over or through burning fuel, when mixed with atmospheric air. Thus, ammonia is resolved into nitrogen and water; sulphuretted hydrogen into sulphurous acid and water; carburetted hydrogen into carbonic acid and water; phosphoretted hydrogen into phosphoric acid and water; the volatile organic matters associated with the gases are completely destroyed; carbonic acid alone passes through the fire unchanged. All these gases, with the exception of ammonia and carbonic acid, exist only in very small proportions in putrescent animal matter. It follows, from what has been stated, that all the volatile products of putrefaction are thus resolvable into the ordinary products of combustion, which are well known to be innocuous. It suffices to conduct these gases and vapours through a fire to effect their entire decomposition and destruction.

The apparatus by which this process may be worked, he thought susceptible of many modifications; but that to which he particularly desired to direct the attention of the society consists in drying the animal refuse by the application of heat, either obtained from steam-pipes or otherwise, and at the same time destroying the volatile products of putrefaction by burning them.

## NOTES IN THE PROVINCES.

ANOTHER obituary window has been put up in Chichester Cathedral. It is the work of Mr. M. O'Connor, of London.—The restoration of the west front of Gloucester Cathedral is about to be resumed, it is said, with vigour.—The new dock at Gloucester was opened on 18th inst. The new basin nearly doubles the quayside accommodation, and there are two additional cranes, each capable of lifting upwards of 20 tons. At present the basin will be appropriated to the discharge of cargoes sent by rail.—The foundation-stone of the Lazarus Almshouses was laid last week, at Hereford, by Lady Emily Foley.—A new church, says the *Hereford Times*, is about to be erected in the parish of Clifford.—The new Exchange Market at Bristol was opened on Saturday week.—The architect of the projected Wilts County Lunatic Asylum, on Wednesday week exhibited the plans, &c., and pointed out the site to builders, ironfounders, and others intending to send in estimates for the construction of the building. Amongst those present are said to have been several London

firms, with Messrs. Willcox and Son, Bristol; Messrs. C. and R. Gane, and Mr. W. Hancock, Trowbridge; Messrs. Simpson and Bennett, Lyme; Messrs. Daniel and Charles Jones, Bradford; Messrs. James and John Hodges, Doulting, Shepton Mallet; Messrs. Young and White, Devizes; Mr. John Mitchell, Pewsey; Mr. H. B. Hale, Warminster.—The Lion Barracks, at Portsea, are to be given up to the authorities in a finished state on 1st May, or within the time specified by the contractors, Messrs. Locke and Neaham.—The following tenders, according to a provincial authority, were given in for the restoration of the parish church of Atherstone:—Messrs. Broadbent and Hanley, of Leicester, 2,645*l*.; Mr. Spencer, of Lutterworth, 3,294*l*. 10*s*.; Mr. Lilly, of Measham, 3,284*l*. 2*s*.; Mr. Lloyd, of Atherstone, 3,312*l*. 7*s*.; Mr. Spencer, of Atherstone, 3,452*l*. 7*s*.; Mr. Hardy, of Cotton, 3,470*l*.; Messrs. Miller, Fox, Pullon, and Stanton, Atherstone and Bilton Building Company, 3,973*l*.; Mr. Cooper, of Derby, 4,272*l*. The lowest tender, that of Messrs. Broadbent and Hanley, accepted.—The cost of the recent alterations and additions at the Bedford Lunatic Asylum, affording accommodation for about seventy additional patients, besides offices, enlargements of airing yards, warming and ventilating, and a supply of hot and cold water apparatus, is upwards of 5,000*l*.—On Tuesday week the foundation stone of St. Alban's Church, Liverpool, was laid at the end of Bond-street. The building is to accommodate 1,000 persons, at a cost of 5,000*l*.—St. Matthias's Church, Great Howard-street, designed by Mr. A. Holme, with accommodation for 1,000 persons also, was consecrated on same day.—St. Jude's Church, Bradford, is at present under repair and renewal.—The sewerage of Gateshead is about to be commenced by call for tenders for a main sewer.

## SUPPLY OF WATER TO CONSTANTINOPLE.

I beg leave to send you the following reply to the query of your correspondent relative to the supply of water to Constantinople. The numerous erections which he terms "upright pipes," are called "souterazi," or water towers, and are used for the purpose of passing the water across the valleys upon the principle of the syphon, instead of the more expensive construction of aqueducts. These towers, it is stated, were erected at about one-fifth of the expense of aqueducts, and are generally attributed to the ancient Greeks. The supply of water to Constantinople is obtained from the mountains, bordering on the Black Seas, where it is collected in reservoirs, which are situated about 15 miles from that city, and is conveyed by means of four conduits, composed of earthen pipes, having at intervals the "souterazi" to the central reservoir contiguous to the city, and from whence it is distributed by conduits to the seraglio, and the fountains that are established in almost every street.

These "souterazi" form a regular inclined plane from the mountains to the city, and they also have the same effect as the "columnnae" of the ancient Romans, in relieving the hydraulic pressure on the pipes, and at the same time allow the escape of the air, and the basin on the top serves as a place of deposit for any sediment or feculent matter.

B. BAYLIS.

## METROPOLITAN COMMISSION OF SEWERS.

A GENERAL COURT was held on Thursday, the 19th inst., at the Court House, Greek-street; Lord EBRINGTON, M.P., in the chair.

*The Retirement of the Hon. Fred. Byng from the Commission.*—Upon a recommendation from the Works Committee being read, that 455 feet of pipe sewer be put down in Parker-street, Drury-lane, and 135 feet of invert of the existing sewer be lowered, at an expense of 140*l*.

Mr. R. L. Jones briefly complained that this question was now brought before the court for the first time, and protested against such a system.

Mr. Bullar rose to order. This was going into the old question of committees.

The Hon. Fred. Byng then rose and said, that he hoped the court would bear a few observations from him, and probably they would be the last he should offer in that court. Mr. Chadwick had charged

him with "obstructing" the business of the court, but he felt that the Works Committee had almost become the court, and he was unclear there unless it were to hold up his hand for the confirmation of their proceedings. That committee, from the very large number of which it was composed (15) was in effect, though not quite in number, a majority of the court, and when himself and other commissioners came down to the court they knew nothing about what was going on, the business having been done by the Works Committee. Mr. Chadwick had frequently boasted of the sub-division of labour, but the term was most extraordinary, and the application of it rather droll. The Works Committee had taken or imposed upon itself duties as regarded "all complaints and applications for works and operations, and leave to execute works and operations as to sewers and sewerage—as to house drains and cesspools—as to surface drains and gullies—as to paving, water supply and cleansing—and as to miscellaneous matters relating to works." matters enough to overwhelm an ordinarily-constituted committee. Call this a sub-division of labour!—he called it a concentration of labour. It was a most extraordinary sub-division of labour, for he found that the attendance at the Works Committee was not numerous, taking the average; but what appeared to him most extraordinary with reference to it was the fact, that the persons most frequently present at it, were persons who, like his lordship in the chair, and Mr. Chadwick, held overwhelming appointments under the state. He believed, also, that the appointment of officers was illegal. By the course that had been adopted, he found his attendance extremely irksome, and he felt compelled to take a similar step to that taken by an excellent commissioner (Mr. Hutton), with whom he acted for fifteen months, and who had expressed his determination to attend no longer. He had waited upon that gentleman to ascertain his reasons for so doing, and found the grounds for his retirement to be similar to his own. He had come to the same conclusions that had induced Mr. Hutton not to attend, and should now follow his example. He had, for his opposition, been threatened to be superseded, and had been recommended by Mr. Chadwick to withdraw if he was dissatisfied with the order of proceedings. He (Mr. Byng) could not agree to take his advice, but should take his own, and he had come to this conclusion because he believed the Government approved of the views of Mr. Chadwick, and the manner in which measures for the public service were carried out in that court. However, he could only see in their proceedings an illegality and an unwarrantable outlay of money by the court in a way that had never been intended. He held in his hand two publications,—one given by his friend Mr. C. Johnson, the other by Mr. Chadwick, on agricultural subjects,—clever pamphlets, certainly, in their way, but not of pressing importance, and, therefore, he contended, they ought not to have been entertained by the court. The one had been ordered to be printed by the court; but he found the other had been ordered by the Works Committee, to be printed exclusively for their use, having no regard whatever to the rest of the commissioners, and he believed they were not at all justified in going into any expense of this kind. He intended, after the present meeting of the court, to withdraw from any active interference in the affairs of this commission, which he regretted sincerely, as it might deprive him of his share of the applause if success should attend the action of the commission for the benefit of the public; but he believed they acted illegally, and that their acts would bring them into the Court of Queen's Bench.

Lord EBRINGTON hoped the court would not reopen the long-veiled question as to the business of the court.

Mr. R. L. Jones believed every question ought first to be brought before the court, for the mode of carrying on the business was the most irregular he had ever witnessed. In fact, those commissioners who were not on the Works Committee were a mere non-entity.

No other commissioner rising to address the court, the chairman put the motion for the adoption of the recommendation of the Works Committee, which was passed without opposition.

*The Jurisdiction of the Commission.*—A long report was presented on the subject of the recent fine imposed by Mr. Burrell, the magistrate at the Westminster Police Office, on John Merry, a foreman of pumps and hose, for having created a nuisance during the process of emptying a cesspool in York-street, Westminster, the odour being so great as to compel the tradesmen to close their shops and windows. In giving judgment, under the provisions of the Police Act, the magistrate contended, notwithstanding the extraordinary powers vested in the Commissioners of Sewers, they had no right to relieve the cesspools in the day-time, or to create a nuisance in so doing, and thereupon fined the defendant in the nominal amount of 10*s*. to try the question, as Mr. Smith, the solicitor to the commissioners, had signified his intention, on their behalf, of appealing against this conviction.

It appeared that the information had been laid by